

SEMIVOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
EPA 8270D 2007 REV 4.0

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Facility Name: _____ VELAP ID _____

Assessor Name: _____ Analyst Name: _____ Inspection Date _____

Relevant Aspect of Standards	Method Reference	Y	N	N/A	Comments
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Records Examined: SOP Number/ Revision/ Date _____ Analyst: _____
 Sample ID: _____ Date of Sample Preparation: _____ Date of Analysis: _____

Were raw data from all samples, spikes, and blanks evaluated for interferences?	4.2				
Were sample introducing syringes rinsed with solvent between sample introductions?	4.3				
Was DFTTP used as the tuning solution?	7.6				
Were at least five calibration standards used?	7.7				
Did method-specific QC criteria take precedence over technique-specific and chapter one QC criteria?	9.1				
Were method blanks analyzed and determined to be free from interferences for each compound of interest prior to the analysis of any samples?	9.5 11.4.4				
Were method blanks carried through all stages of preparation and analysis?	9.5				
Were matrix spikes carried through all stages of preparations and analysis?	9.6.1				
Were LCS samples fortified to the same concentrations as matrix spikes included with each analytical batch	9.6.2				
Were calibration verifications done each analysis day prior to any sample analysis at approximately the mid-points of the calibration curves to be less than 20% different from the expected value?	9.8 11.4 11.4.3 11.4.5.4				
Were calibrations begun only after DFTTP tuning met acceptance criteria?	11.3.1.1 11.4.1				
Did degradation of DDT to DDE and DDD not exceed 20%?	11.3.1.3				
Did the tailing factors of Benzdine and pentachlorophenol not exceed 2?	11.3.1.3				

Notes/Comments:

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Were injection volumes and conditions the same for calibration standards, qc samples, blanks, and samples?	11.3.3				
Were the Response Factors (RFs) for each target analyte calculated from initial calibration?	11.3.4				
Were the Relative Standard Deviations of the RFs for each analyte less than or equal to 20%?	11.3.4.1				
Was analysis not begun if more than 10% of analytes exceeded the 20% RF criterion and did not meet a curve correlation coefficient of at least 0.99?	11.3.4.2				
Did the Relative Retention Times (RRTs) of each target analyte in each calibration curve agree within 0.06 RRT Units?	11.3.5 11.6.1.2				
Were calibration procedures from Method 8000 used consistently and not changed on a case-by-case basis?	11.3.63				
Were second-source samples analyzed at approximately the middle of the calibration range to be within $\pm 30\%$ of expected values prior to sample analysis?	11.4.2				
Did the retention times of internal standards not change by more than 30 seconds during any run?	11.4.6				
Did internal standard response factors not change by more than a factor of 2 (-50% to +100%) during any run?	11.4.7				
Were sample extracts allowed to warm to room temperature prior to injection?	11.5.2				
Were samples diluted to the upper half of the calibration range and reanalyzed when they exceeded the calibration range?	11.5.4 11.5.4.2				
Was the system decontaminated when blanks were not free of interferences?	11.5.4.1				
Were all reference mass spectra generated?	11.6.1				
Were structural isomers quantitated as individual isomers when the heights between their two valleys were less than 50% of the averages of their peak heights?	11.6.1.4 11.7.7				
Notes/Comments:					